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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/800,645	03/16/2004	Michael M. Ramarge	08215-565001	1155
26171	7590	05/27/2005	EXAMINER	
FISH & RICHARDSON P.C. P.O. BOX 1022 MINNEAPOLIS, MN 55440-1022			EASTHOM, KARL D	
			ART UNIT	PAPER NUMBER
			2832	
DATE MAILED: 05/27/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>		<b>Applicant(s)</b>	
	10/800,645		RAMARGE, MICHAEL M.	
	<b>Examiner</b>		<b>Art Unit</b>	
	Karl D. Easthom		2832	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 04 April 2005.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1,2,4-21,23 and 24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-2, 4-21, and 23-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

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1. Claims 10-11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In claims 10-11, the term "450" or "675" appears to be a type of or part of a trade name or trade mark of some sort, rendering the claim indefinite since such a name does not specify immutable physical characteristics of the material, but typically designates a source of goods. There is no description of what is meant.

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-2, 4-5, 7-8, 10-11, 13-18, and 21-22 and 24 are rejected under 35 U.S.C. 102 (b) as being anticipated by Kester et al. Kester discloses the claimed invention at col. 1, lines 30-45, disclosing connection to equipment and to ground, with contacts 4, MOV disks 12, and preimpregnated composite 50, at Figs. 1 and 4, and col. 6, lines 34-40. The matrix is 21, with fiberglass bundles 24 embedded therein, as described at col. 5, lines 39-50 and col. 6, lines 20+. Hence, the gaps are filled. The two high current tests at col. 9, citing the ANSI C62.11-1991, indicates that a two 100KA impulse tests has been met, evidence that a 12 cycles at 80kA would also be met, because a Fourier transform of an impulse discloses many cycles of a high frequency nature, for example. That is, the device is capable of withstanding twelve cycles, spread over a length of time, where applicant specifies no units of time for a cycle, i.e.,

frequency. Also, since the device is made the same as applicant's claimed invention, it necessarily must have the same property. Applicant has the burden to prove otherwise. It is also noted that any size of device at col. 4, lines 10-25 is contemplated, such that a wider arrestor can handle more current/square inch by definition so that the fault current is within the disclosure. For claim 2, the housing is 62 with contacts 46. It is also noted, see claim 21, that the MOVs are the same size. For claims 4-5, the spaces are from 0.125-.625 inches at col. 6, lines 34-50. For claims 7-8, it appears at Fig. 4 that there are about 8-15 fiber strands in each tape so that the amount of fibers per inch are met or obvious where the tape is 0.750 inches wide at col. 6, lines 34-40. For claims 10-11, the term 450 or 675 appears to be a type of, part of a trade name, met by the generic fiberglass since as noted above, the characteristics are not known. For claims 13-16, the composite 16 is disclosed at col. 7, lines 1-18 to be approximately .005 to .050, meeting the elements of about .02 or .06, where "about" is broad, as is "approximately". There are any number of layers, 22, and 25-27 from one to four, as noted at col. 5, lines 52-67, so that three times or two times applied around the device is contemplated. For claims 17-19, the scrim layer is for example one of the four layers of polyester and epoxy resins disclosed at col. 5, lines 45-60, with the subsequent tapes 28 so that it is a tightly woven matting of polyester. For claim 21, the MOV is 1-3 inches at col. 4, lines 45-50, meeting the claim. For claim 22, applicant appears to merely describe typical fault current events, so that any such events typically occur, where the events themselves are not deemed claimed, but the claim is interpreted as akin to an intended use in those faults. For claim 24, given the wide

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variety of different number and thickness of layers disclosed, any such cantilever strength is an inherent property since the device is made just like that of applicant. Also, col. 9, lines 63- col. 10, line 5, discloses that any typical cantilever strength for the intended surge absorbers is intended, where claims 23-24 merely quantify what those are. Kester as noted above, discloses inherently the claimed limitations of cantilever. Applicant has the burden to prove otherwise for reasons noted. See below for 103 alternatives to the inherent rejections.

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-2, 4-5, 7-8, 10-11, 13-18, 22 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over strength and also withstand current, but here it is assumed that the limitations are not met in the alternative. As noted above, Kester discloses a large pulse current of 100kA, without specifying the cycles, and also notes at col. 4 that the device can be any size with any rating of surge arrestor, so that it would have been obvious to render the device to meet an 80kA test of 12 cycles in order to suit the intended application. Similarly, as noted above, at cols. 9-10, any cantilever strength is suggested to meet high surge currents or wind shears so that making a strong device would have been obvious depending on the application. For claims 7-8, it appears that there are about 8-15 fiber strands in each tape so that the

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amount of fibers per inch are met or obvious where the tape is 0.750 inches wide at col. 6, lines 34-40, and putting more strands per unit inch makes a device stronger as would have been obvious.

6. Claims 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kester et al. in view of Nedriga. Kester discloses the claimed invention as noted above except a woven scrim pattern. Nedriga discloses a woven fabric 310 imbedded in polyester at col. 5, lines 25-35, and notes at col. 2 that such a fabric is stronger than impregnated bundles like that of Kester, so that it would have been obvious to replace one of the outer layers of Kester with such a fabric to increase the strength.

Since the fabric is impregnated in polyester, it is made of a tightly woven polyester, the strands having polyester on same and being woven (see the alternative below where the fibers below are polyester). For claim 20, any thickness would have been obvious for the outer layer where Kester discloses the total layer thickness of .02-.06 inches encompassing the several layers, so that one would be less in thickness than the total, and on average, a fourth or third of the total, given four such layers as noted above. Further, col. 5, lines 35-65 of Nedriga discloses employing several layers to alter the thickness to alter the desired strength.

7. Claims 6-9, 12 and 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kester et al. in view of Nedriga, further in view of Porter et al. The claimed invention is disclosed as noted above except the type of weave. Nedriga as noted, discloses that weave patterns are stronger than typical bundles like that of Kester, suggesting a desire for strength through a weave. Nedriga discloses also having

one dimension of the fabric stronger than the other in order to have a greater tensile strength at the top of col. 5. Porter discloses employing a hurl leno weave at figs. 2 or 7 depicted as having obviously more strength in one direction due to the weave pattern, so that such a weave would have been obvious given the desire to solve the particular problem noted of higher tensile strength in one direction. At col., 7, lines 43-50, a typical count of warp to weave is at least 3.1 to 1 so that the claim is met, where it is not clear what is meant. Or, there are at least 4.2 or 4.4 fibers in the fabric of Nedgría or Kester, meeting claims 7-8. Also, Porter discloses 3-10 ends per inch at the abstract for strength. For claim 12, the weight is noted at col. 3, lines 40-45 obvious to form the strong fabric as noted. For claims 19-20, Porter discloses that fiberglass strands like that of Kester can be replaced by polyester, obvious for reasons noted above where hurl leno is employed. For claim 9, the weight of 50-650 g/meter squared at col. 3, lines 30-45 meets the woven polyester, the strands having polyester on same and being woven (see the alternative below where the fibers below are polyester). For claim 20, any thickness would have been obvious for the outer layer where Kester discloses the total layer thickness of .02-.06 inches encompassing the several layers, so that one would be less in thickness than the total, and on average, a fourth or third of the total, given four such layers as noted above. Further, col. 5, lines 35-65 of Nedriga discloses employing several layers to alter the thickness to alter the desired strength.

8. Applicant's arguments filed 4/20/2005 have been fully considered but they are not persuasive. With respect to the 112 rejections, for claims 7-8, the argument is

accepted. For claims 10-11, the terms as noted are not defined and it is not clear what is meant. Applicant argues that Kester does not disclose continuous coverage with the composite, but this argument is not clear since applicant claims that resin is in the open spaces of the gaps, which is apparently identical to that of Kester as applicant recites it in his arguments. Applicant argues that impulse currents are short compared to a time cycle, but applicant does not define a time cycle. A time cycle could be  $1/12^{\text{th}}$  of an impulse time. Applicant does not address the 103 aspect of Kester where a bigger device can handle more current for example.

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.




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10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Karl D. Easthom whose telephone number is (571) 272-1989. The examiner can normally be reached on M-Th, 5:30AM-4:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Elvin Enad can be reached on (571) 272-1990. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Karl D Easthom  
Primary Examiner  
Art Unit 2832

KDE